

VACANCY ANNOUNCEMENT

Job Summary

Position: Research Scientist - Infectious Disease Modeling (1 Post)
Reports To: Project Leader
Work Station: Dar es Salaam
Apply By: 30th June 2025

Institute Overview

Ifakara Health Institute (IHI) is a leading research organization in Africa with a strong track record in developing, testing and validating innovations for health. Driven by a core strategic mandate for research, training and services, the Institute's work now spans a wide spectrum, covering biomedical and ecological sciences, intervention studies, health-systems research, service delivery and policy translation.

Position Summary

Ifakara Health Institute is seeking highly motivated and qualified **Research Scientist (Infectious Disease Modeling)/ PhD student** registered for a thesis with advanced modelling expertise to drive MoDD Africa's mission of delivering tailored, model-based evidence and forecasting for malaria control. The successful candidates will lead the development and application of advanced mathematical and geospatial models to address malaria control challenges, working closely with NMPs, regional hubs, and global collaborators. This role offers a unique opportunity to contribute to cutting-edge research and build a lasting network of African modelers.

The **Modelling for Decisions in a Dynamic Africa (MoDD Africa)** project is a collaborative, innovative initiative designed to bring together modelers, researchers, and decision-makers to support national decision-making for malaria control, with an initial focus on malaria in the **Democratic Republic of Congo (DRC), Nigeria, and Tanzania**. These countries account for half the world's malaria deaths and over 40% of cases, making them critical focal points for impactful intervention. The project aims to deliver robust, evidence-based tools, forecasting systems, and model-based advisory systems to support public health decision-making in the face of rapidly changing environmental and social dynamics across Africa. By integrating environmental, entomological, epidemiological, and health system data.

The candidate will be offered a dynamic and inclusive research environment within leading African research institutes. Opportunities for professional development through training, hackathons, and international collaborations. Access to high-performance computing resources and datasets from MAP and Vector Atlas. And a chance to make a direct impact on malaria control in high-burden countries. Support for career advancement through publications, networking, and mentorship.

Duties and Responsibilities

- Develop and implement advanced statistical and geospatial modelling frameworks to analyze the interplay of environmental changes, vector behavior, transmission, disease outcomes and health system performance.

VACANCY ANNOUNCEMENT

- Lead the creation of models assessing the impact of climate, urbanization, and land-use changes on vector dynamics and intervention effectiveness.
- Integrate diverse datasets (e.g., vector, climate, health surveillance) to produce predictive maps, early warning systems, and intervention optimization strategies.
- Contribute to unified frameworks for early warning systems for emerging malaria threats.
- Identify and address research questions on climate and socio-environmental impacts on malaria and other vector-borne diseases.
- Collaborate in the establishment of learning hubs to develop model-based ecosystems in collaboration with public health stakeholders in the DRC, Nigeria and Tanzania.
- Participate in hosting workshops, hackathons and modeling competitions to foster collaboration and skills transfer.
- Involved in supervision and mentoring of young researchers, promoting the exchange of knowledge within the team.
- with NMPs and other stakeholders to translate modelling outputs into actionable recommendations.
- Foster effective communication to ensure model uptake and utilization in decision-making processes.
- Engage with local and international research partners, government agencies, and NGOs. Establish strategic partnerships to enhance research opportunities and funding.
- Prepare technical reports, research manuscripts, and policy briefs. Present findings to stakeholders, including policymakers, donors, and academic audiences. Contribute to publications in peer-reviewed journals and conference proceedings.
- Present research findings at regional and international conferences.
- Secure funding for future research projects and contributes to strategic planning
- Uphold rigorous data and code management standards, including thorough documentation and version control.
- Oversee project management activities, ensuring milestones are achieved on time.
- Adhere to workplace safety protocols and institutional policies.
- Conduct any other duties as may be assigned by the Project Leader.
- Take reasonable care for your own safety and health and avoid harming the safety and health of others through any act or omission at work.
- Identify and assess workplace hazards and apply hazard controls.
- Report every workplace injury, illness or near miss, no matter how insignificant they seem.
- Abide by institutional policies and procedures.

Qualification and Experience

- Master's degree in geostatistics, entomology, biostatistics, mathematics, infectious disease modeling, mathematical modeling, climate science or any other quantitatively related discipline with epidemiological know-how or Mastery of mathematical, geostatistical and computer modeling, particularly in the field of infectious or vector-borne diseases.

Ifakara Branch

Off Mlabani Passage
 P.O. Box 53 Ifakara
 Phone: +255232931572

Dar es Salaam Office

Plot 463 Mikocheni
 P.O. Box 78,373 Dar es Salaam
 Phone: +255222774756

Bagamoyo Branch

Kingani Area
 P.O. Box 74 Bagamoyo
 Phone: +255232440065

VACANCY ANNOUNCEMENT

- Previous experience working on malaria or other mosquito-borne diseases particularly with vector control or malaria biology.
- Experience working with the National Malaria Control Programme and managing relationships with key stakeholders (e.g., HISP, DHIS2, TMA), data owners and collaborators.
- Experience in knowledge synthesis, such as conducting literature reviews and evidence syntheses, to support model assumptions and fill data and parameter gaps.
- Knowledge and experience working with low- and middle-income country ministries of health, national disease control programs, funding agencies and bilateral organizations.
- Experience in developing and implementing training for different audiences.
- Knowledge of climate and weather data and experience in climate modeling.
- Knowledge of implementation science, including iterative response models and adaptive planning.

Skills and Competencies

- Proficiency in one or more programming languages (e.g., R/Python, Stata), knowledge of other statistical software and data visualization applications.
- Track record of scientific publications in high-quality peer-reviewed journals in the fields of epidemiology, modeling, or health systems research.
- A demonstrated commitment to capacity building and institutional networks within African research institutions.
- Excellent written and verbal communication skills in English, with proficiency in French considered an added advantage.
- Familiarity with climate and meteorological data and experience with climate modelling.
- A demonstrated commitment to capacity building and strengthening institutional networks within African research institutions.
- Demonstrable commitment to using best practices in writing code, including use of source control, documentation/code repositories, and coding standards.
- Ability to manage own academic research, supervise junior staff, define and meet milestones within deadlines.
- Demonstrable evidence of having worked successfully in a collaborative and team research environment.

Remuneration

An attractive and competitive remuneration package will be offered to successful candidates as per IHI salary scales.

Equal Opportunity

IHI is an equal opportunity employer. We prohibit intentional biases or discrimination and harassment of any kind at the work place and during recruitment. All employment decisions are based solely on job requirements and individual qualifications, and our recruitment process is governed by the labour laws of Tanzania.

Ifakara Branch

Off Mlabani Passage
P.O. Box 53 Ifakara
Phone: +255232931572

Dar es Salaam Office

Plot 463 Mikocheni
P.O. Box 78,373 Dar es Salaam
Phone: +255222774756

Bagamoyo Branch

Kingani Area
P.O. Box 74 Bagamoyo
Phone: +255232440065

VACANCY ANNOUNCEMENT

Mode of Application

All candidates who meet the above job requirements should send their application letters together with their detailed curriculum vitae (CVs) showing contact addresses including email, telephone/cell phone numbers and copies of academic and professional certificates to the email address below.

The **deadline** for this application is **12:00 noon on Monday June 30 2025**. All e-mail application subject lines should include: **[Research Scientist- Infectious Disease Modeling – MoDD Africa]**. **Only shortlisted applicants will be contacted for an interview.**

Senior Human Resources and Administration Manager

IFAKARA HEALTH INSTITUTE

Plot 463 Mikocheni

P.O. Box 78,373

Dar es Salaam, Tanzania

Email: recruitment@ihi.or.tz



Ifakara Branch

Off Mlabani Passage
P.O. Box 53 Ifakara
Phone: +255232931572

Dar es Salaam Office

Plot 463 Mikocheni
P.O. Box 78,373 Dar es Salaam
Phone: +255222774756

Bagamoyo Branch

Kingani Area
P.O. Box 74 Bagamoyo
Phone: +255232440065